

FIG 5

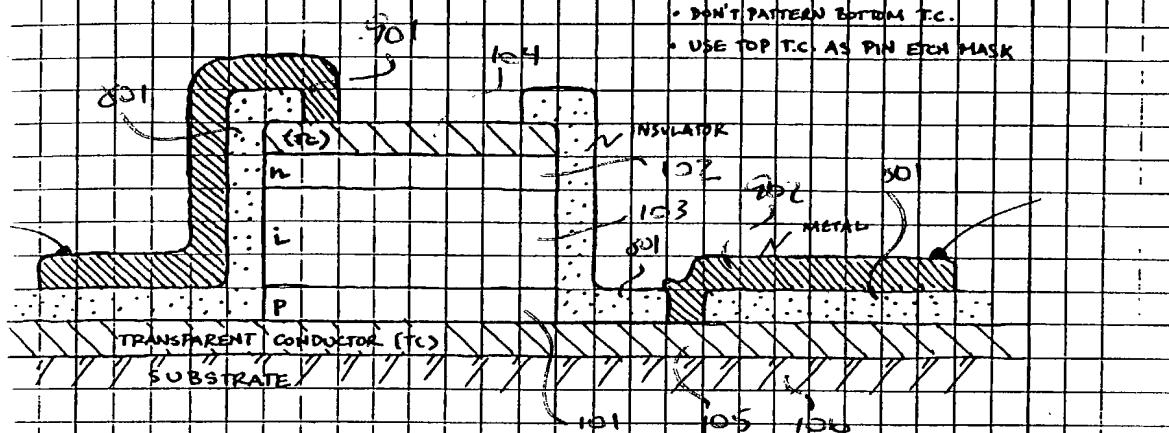


FIG 10

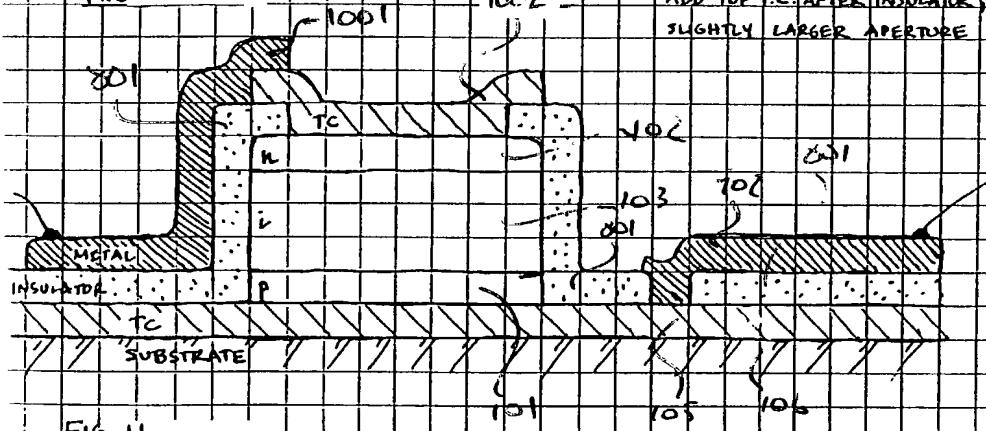
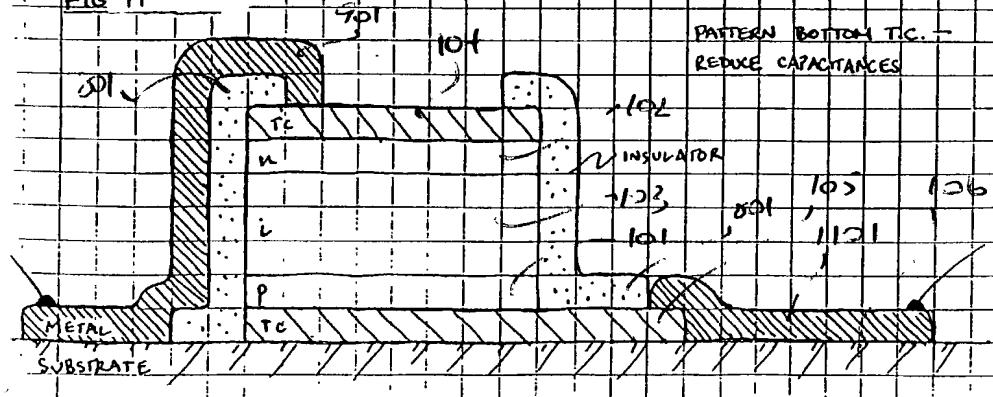
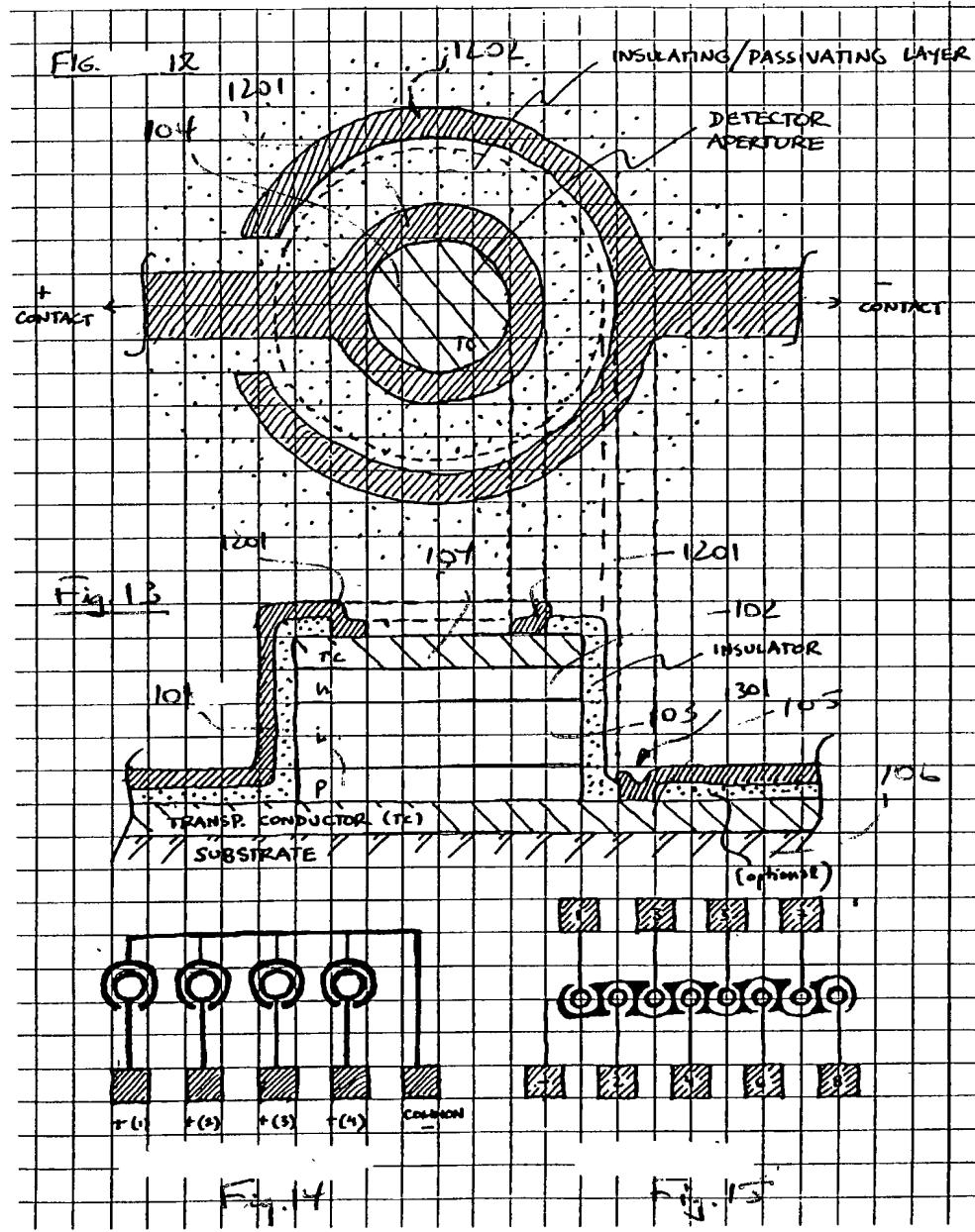
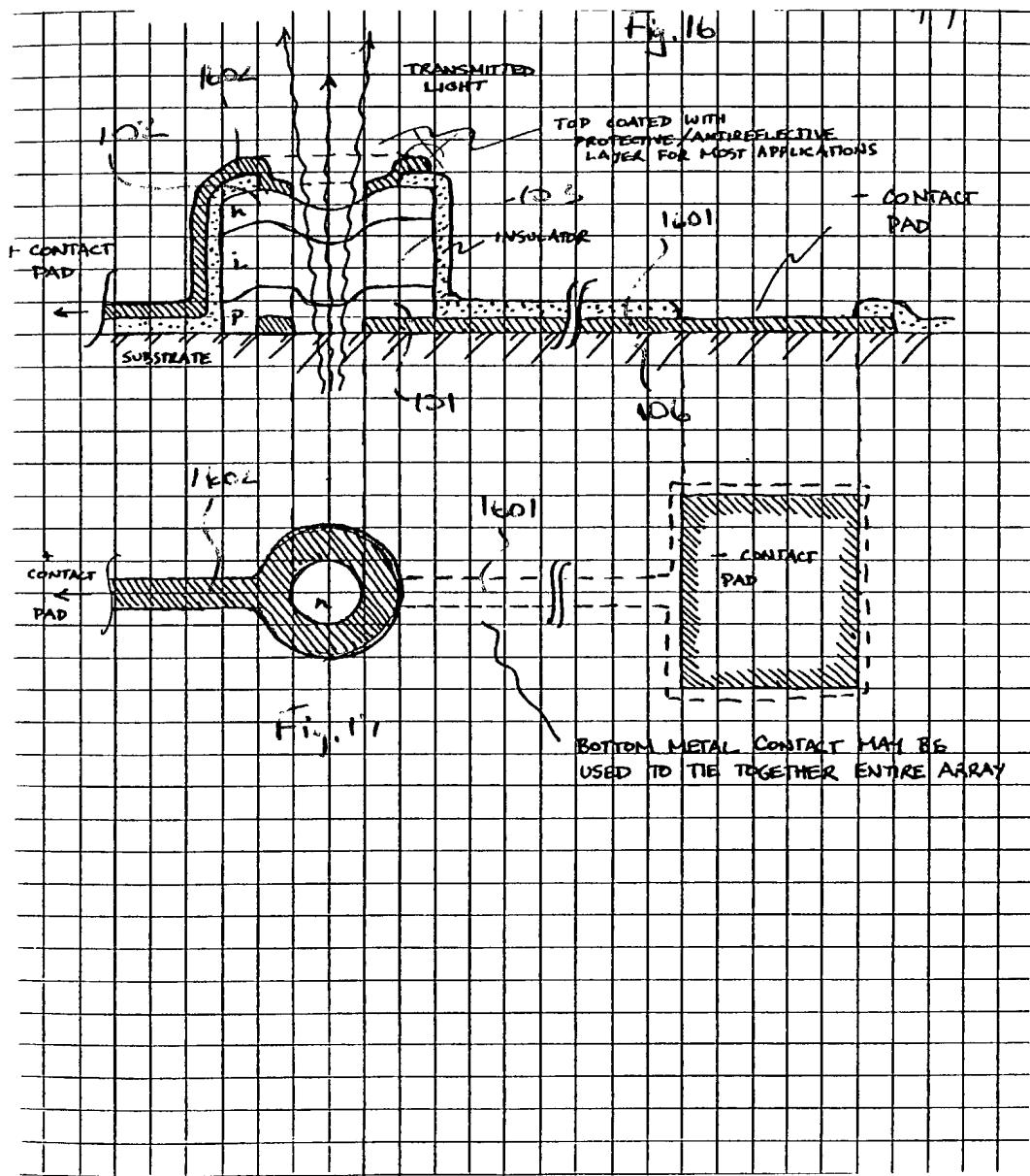
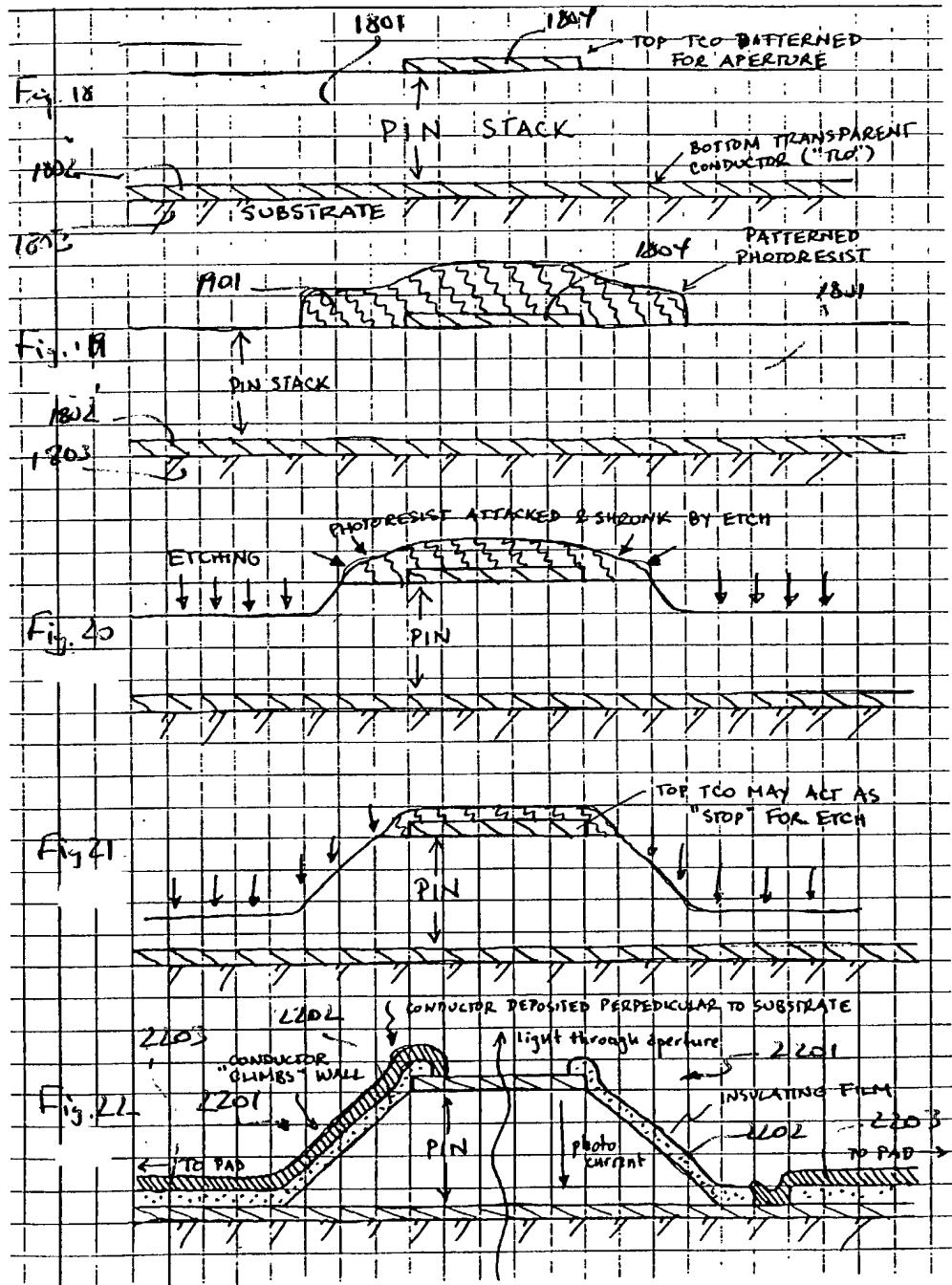


Fig. 11









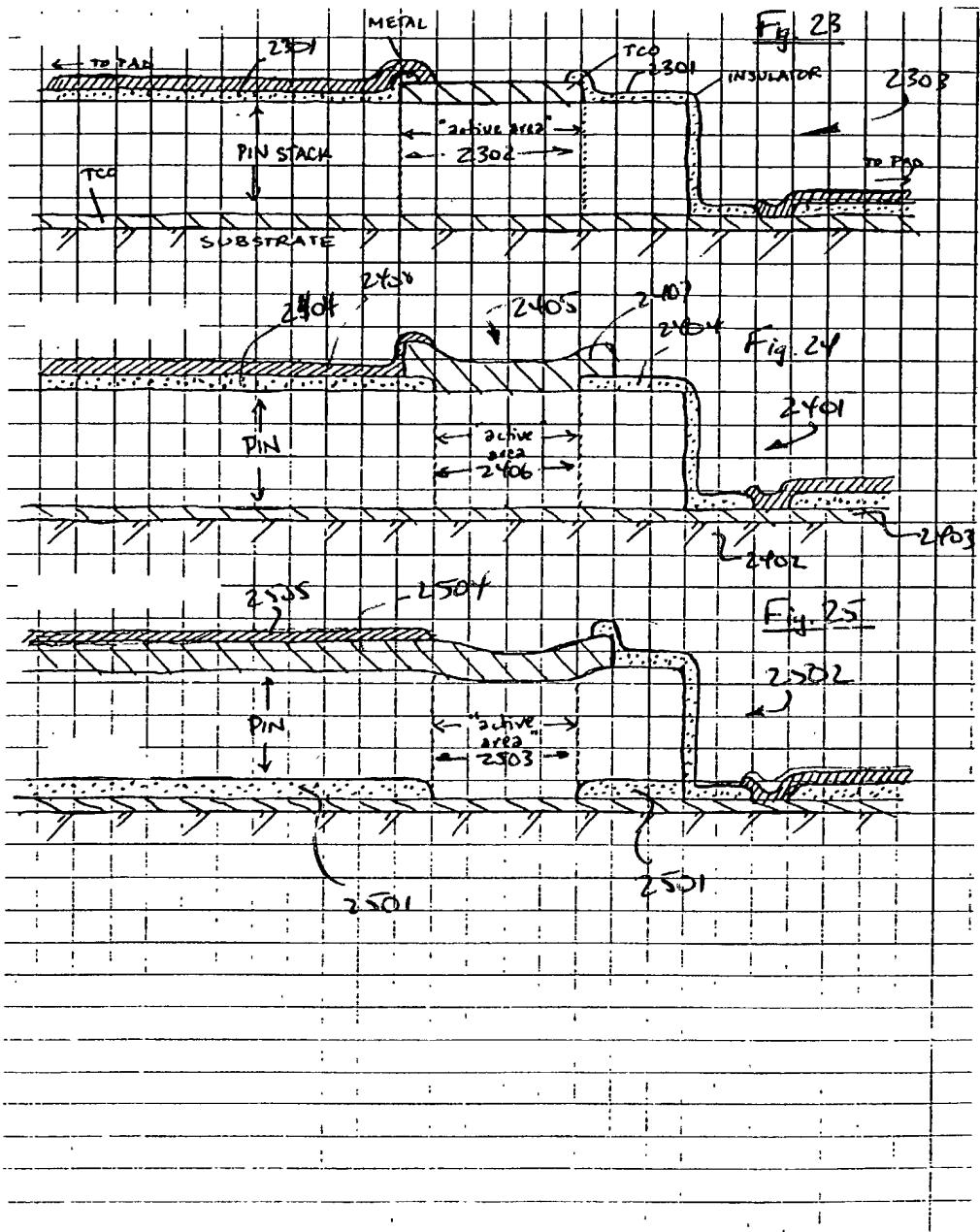
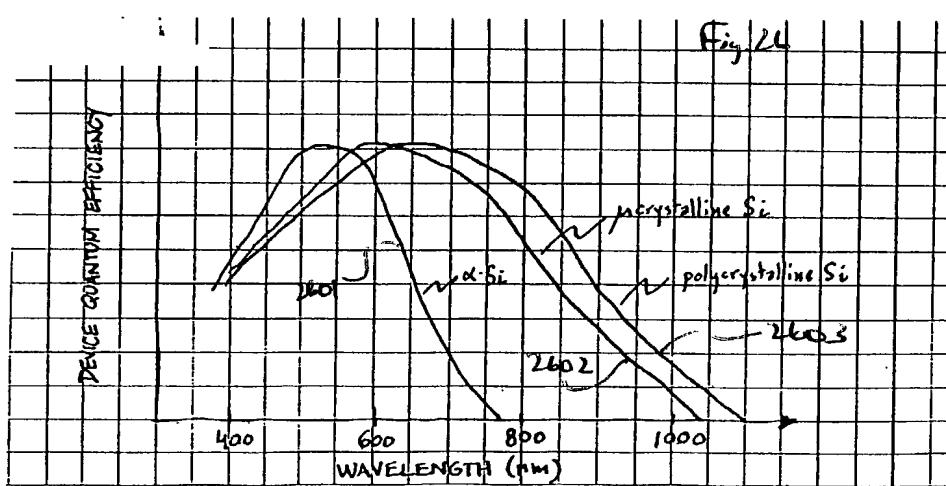
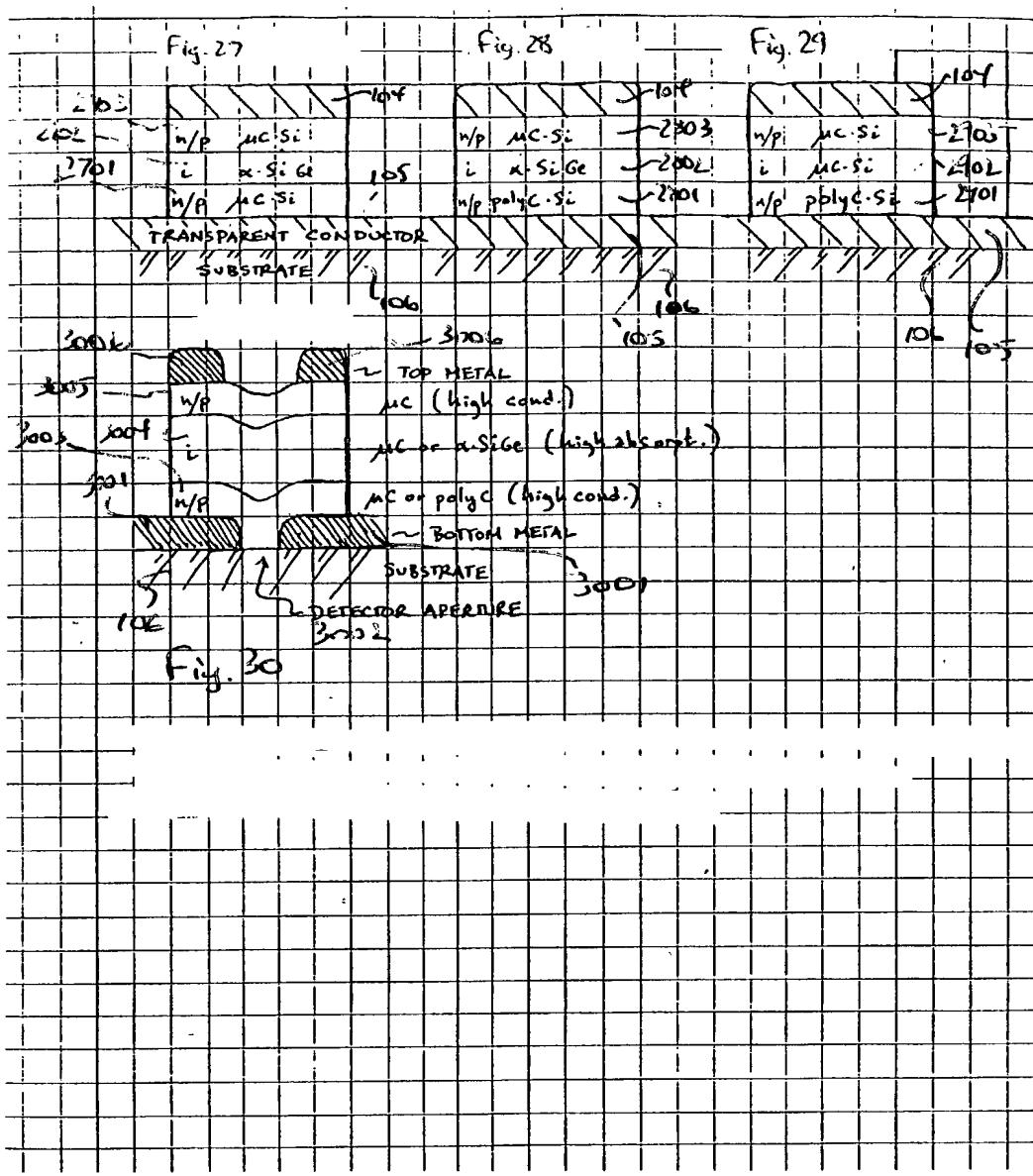
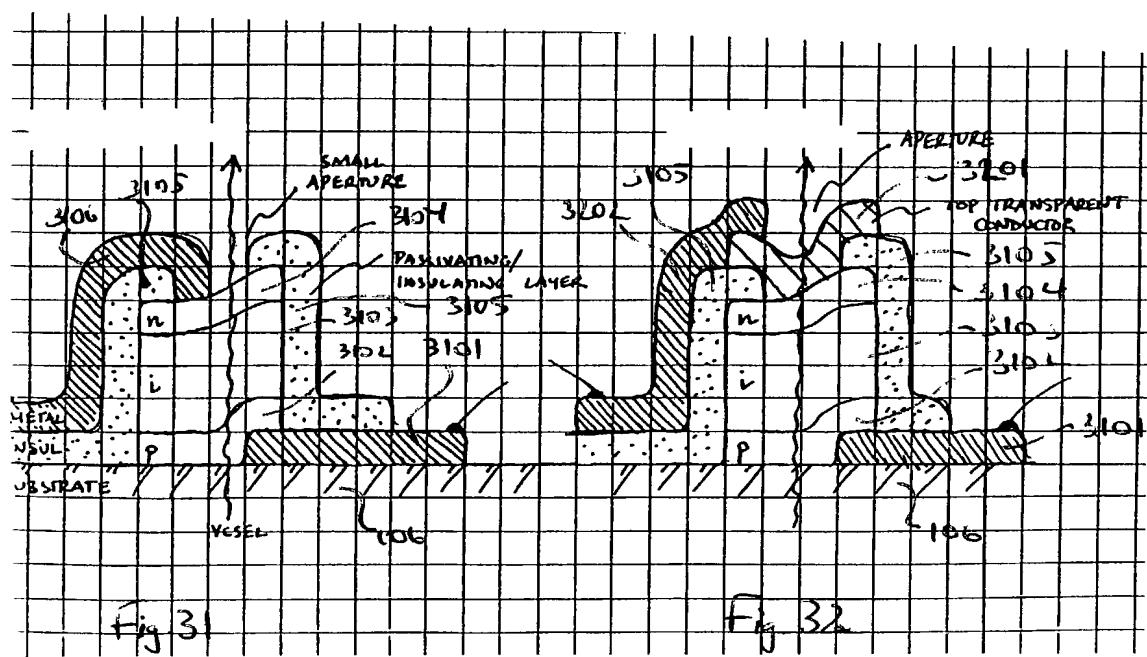
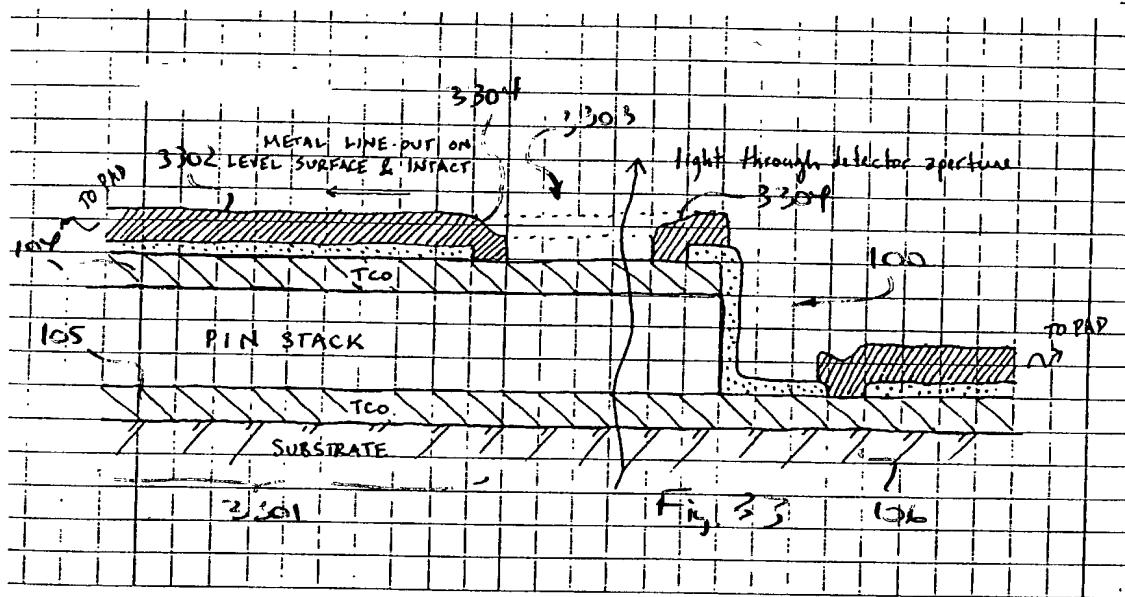


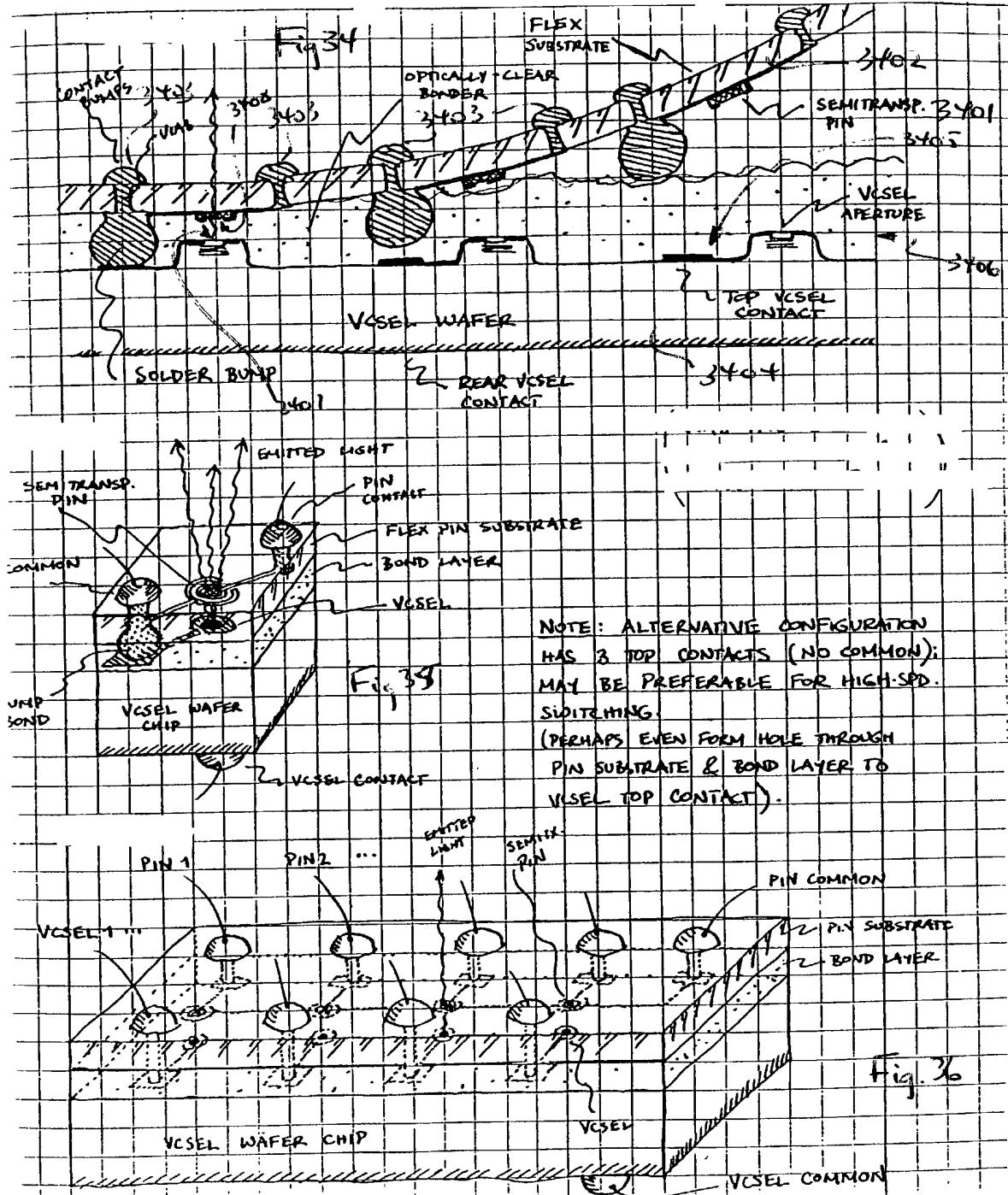
Fig 26

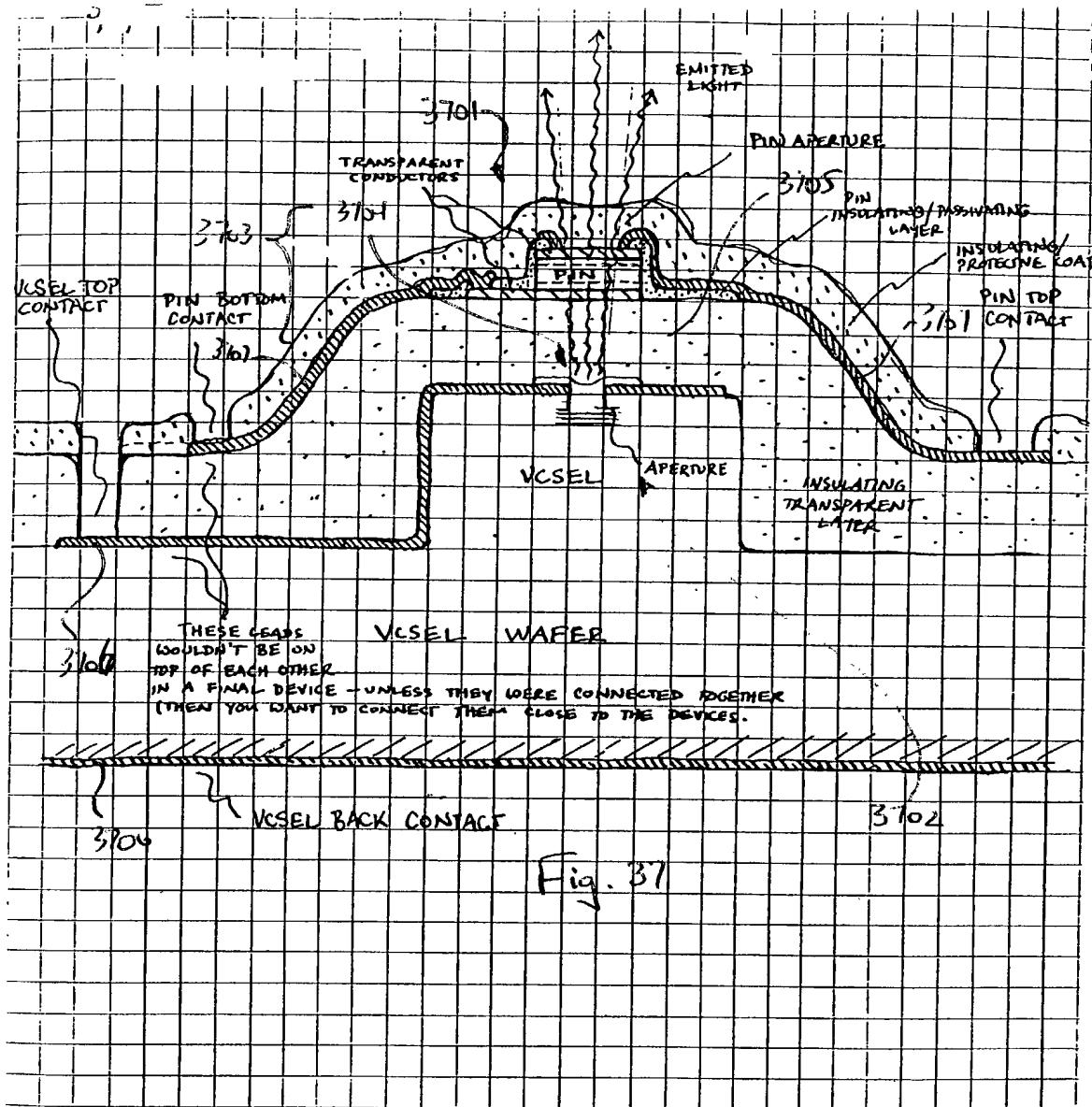


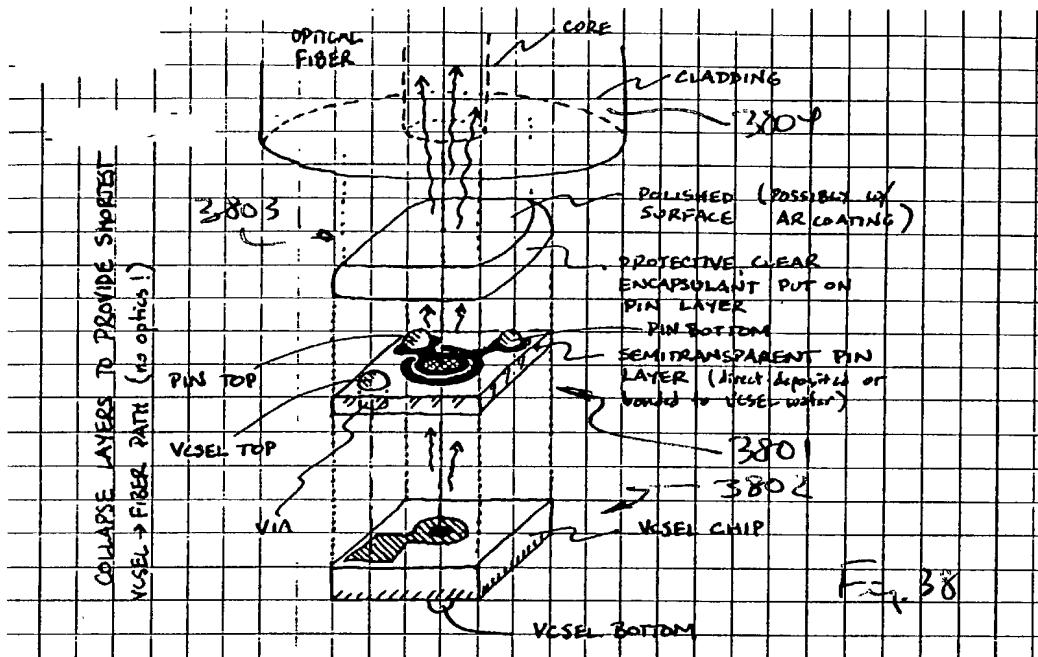












.. SUCH A PACKAGE WOULD ALLOW LOW-COST, DIRECT COUPLING
IN A FIBER CONNECTOR [VCSEL APERTURE $< 25 \mu\text{m}$, AND MULTIMODE
FIBER CORE $\approx 50-62.5 \mu\text{m}$; VCSEL BEAM DIVERGENCE $\leq 20^\circ$, AND
PIN LAYER IS THIN].

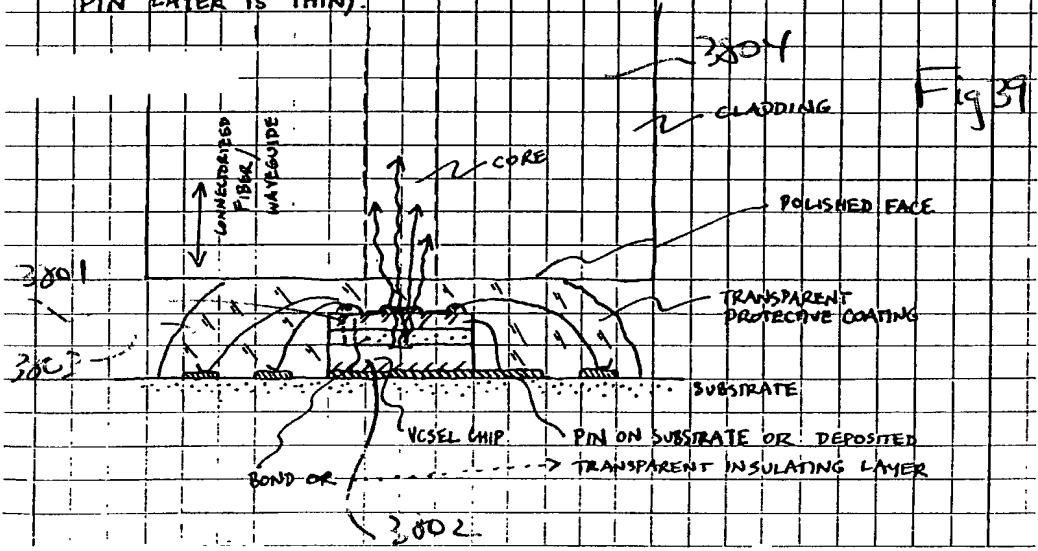
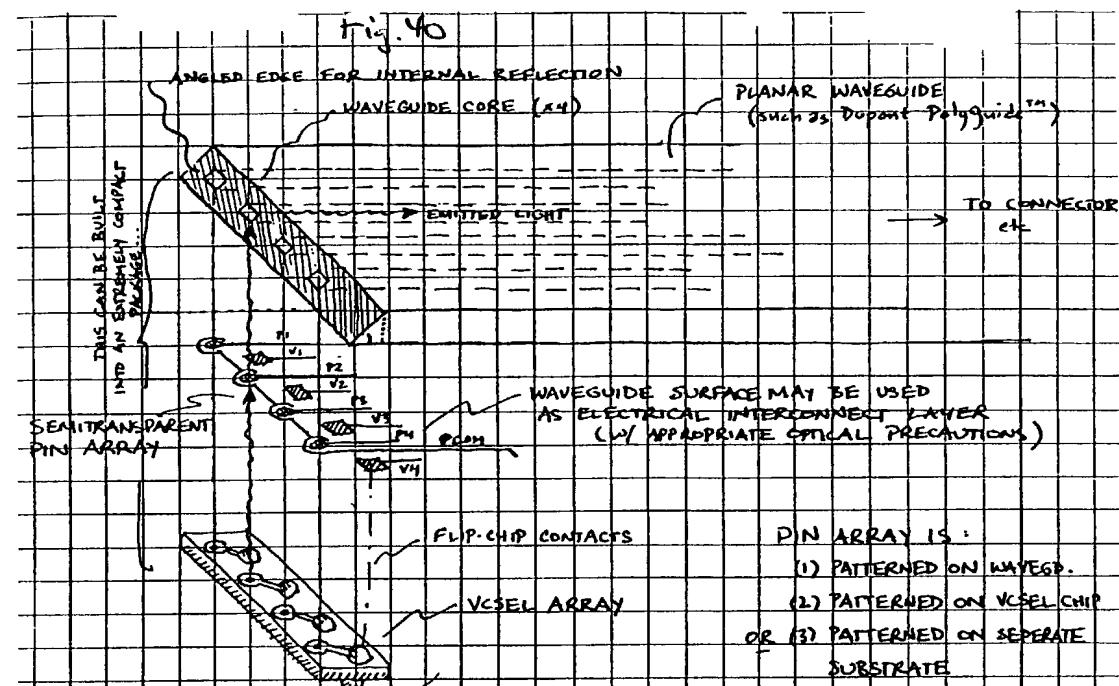


Fig. 40



PIN ARRAY IS:

- (1) PATTERNED ON WAVEGD.
- (2) PATTERNED ON VCSEL CHIP
- OR (3) PATTERNED ON SEPERATE SUBSTRATE

Fig. 41

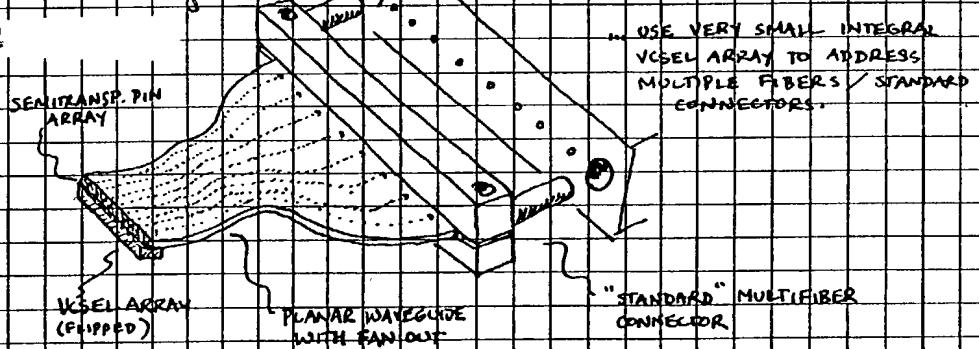


Fig. 42

